

## **REMARKS**

### **I. Status of the claims**

After entering this amendment, claims 26-42, 51, 52, 54-58, 60-62, and 64-77 will be pending. Claims 72 and 73 have been withdrawn by the Office for being directed to nonelected subject matter. Claims 72 and 73 should be rejoined for examination once claim 26 is found allowable. Applicants amended claim 26 to indicate that the inner layer is the innermost layer and that the outer layer is the outermost layer of the claimed multilayer composite. Claims 52 and 54 have been amended to be consistent with the subject matter of claim 26. Support for these amendments can be found, for example, in Figure 1 and in the specification at p. 9, lines 7-12. The new subject matter in claim 77 not already present in claim 26 finds support, for example, in the specification at page 11, lines 18-21. Therefore, the instant amendments raise no issue of new matter.

### **II. Rejections under 35 U.S.C. § 102**

The Office rejected claims 26-39, 41-42, 51-52, 54-58, 60-62, 64-66, 68-71, and 74-76 under 35 U.S.C. 102(b) as allegedly being anticipated by U.S. Patent No. 6,555,243, issued to Flepp and Hoffmann ("*Flepp*.")

According to the Office, *Flepp* discloses a thermoplastic multilayer composite in the form of a hollow body with one intermediate layer formed on the basis of ethylene/vinyl alcohol copolymer. Office Action at p. 3. In the Office's view, *Flepp* discloses "at least one inner and outer layer...as [ ] adhesive layer[s] immediately adjacent to said intermediate layer." *Id.*, internal citations omitted. The Office further argues that the

“inner and outer layers consist of a polyamide molding composition mixture of polyamide 6, polyamide 12, and a compatibilizer.” *Id.* Applicants argued that neither the inner nor the outer layers in *Flepp* comprise a mixture of different polyamide-homopolymers and a compatibilizer. In response, the Office argues that the adhesion promoting layers in *Flepp* comprising polyamide 6, polyamide 12, and a compatibilizer are inner and outer layers relative to the center of the tube, although the Office acknowledges that such adhesion promoting inner and outer layers are not the *innermost* or *outermost* layers. Applicants respectfully disagree with the Office’s characterization of *Flepp* and its application towards the instant invention.

One of ordinary skill in the art reading the current claims in light of the instant specification would understand that the inner and outer layers recited in claim 26 are the innermost and the outermost layers, respectively, of the multilayer composite instantly claimed. With the purpose of expediting prosecution, Applicants amended claim 26 to recite that the “hollow body comprises an inner space, which towards the outer side is enclosed by said inner layer, and wherein the hollow body is limited towards the outer space by way of an outer layer.” That is, the inner layer in claim 26 is the innermost layer and the outer layer is the outermost layer. As mentioned in the previous section, support for this amendment appears, for example, in Figure 1 and in the specification at p. 9, lines 7-12.

Applicants reproduce below the relevant arguments from the Response filed on July 6, 2006, explaining why *Flepp* does not anticipate the instant claims. As these are not new arguments, they should not raise any issues that would require a new search by the Office.

Foremost, *Flepp* does not disclose an innermost and an outermost layer immediately adjacent to an intermediate layer. Rather, *Flepp* discloses a “thermoplastic multilayer composite containing at least one intermediate layer...between layers made from molding compounds.” *Flepp* at col. 5, lines 18-22. These layers “made from molding compounds” are called “neighboring” layers by *Flepp*. *Id.* at col. 22-26. *Flepp* teaches that at least one of these neighboring layers is “made from a molding compound on the basis of polyamide 12, polyamide 11, polyamide 1010, polyamide 1012, or polyamide 1212.” *Id.*, emphasis added. These neighboring layers could act as an inner and an outer layer respectively, but *they are not both “immediately adjacent” to an intermediate layer*. Rather, there is an “adhesion-promoting layer” “between...at least one neighboring layer and the intermediate layer.” *Id.* at col. 5, lines 26-28.

Moreover, neither the innermost nor the outermost layers in *Flepp* consist of a polyamide molding composition mixture of different polyamide-homopolymers and a compatibilizer. The Office’s citation in support of this statement clearly indicates that it is the adhesion-promoting layer that could comprise a mixture of polyamide 6, polyamide 12, and a compatibilizer. *Id.* at col. 5, lines 28-36. However, the adhesion-promoting layer is not an innermost or an outermost layer. As *Flepp* clearly explains, the adhesion-promoting layer is between the intermediate layer and a neighboring layer. *Id.* at col. 5, lines 26-36.

In light of these amendments and the remarks regarding the disclosure in *Flepp* above, it is clear that the present invention is not anticipated by *Flepp*. Accordingly, for at least these reasons, Applicants respectfully request that this rejection be withdrawn.

The present invention differs from the disclosure in *Flepp* in at least the following features:

- the innermost layer comprises a mixture of different polyamide-homopolymers,
- the innermost layer further comprises a compatibilizer,
- the intermediate layer is located immediately adjacent to the outer layer (there is no adhesion promoting layer),
- the outermost layer comprises a mixture of different polyamide-homopolymers, and
- the outermost layer further comprises a compatibilizer.

*Flepp* teaches a structure that has at least four layers. *See, e.g., Flepp* at col. 5, lines 18-36; col. 6, lines 1-12. Moreover, *Flepp* fails to teach or suggest the addition of a compatibilizer in a layer that is either the innermost or the outermost layer of the thermoplastic multilayer composite. Indeed, the compatibilizer is only mentioned for the adhesion-promoting intermediate layers. *Flepp* at col. 5, lines 18-36. Accordingly, one of ordinary skill in the art, in light of the cited references, would not have been motivated to add a compatibilizer to a layer that faces the exterior of the thermoplastic multilayer composite. Indeed, this would be equivalent to having the glue layer facing the outside of the thermoplastic multilayer composite.

Furthermore, *Flepp* also fails to teach or suggest that any one of the innermost and outermost layers comprise a mixture of different polyamide-homopolymers. Only pure single polyamide homopolymer layers are disclosed in such layers in *Flepp*. *See, e.g., Flepp* at col. 5, lines 18-36; col. 6, lines 1-12.

Moreover, there is no suggestion at all in *Flepp*, that it would be possible to reduce, let alone eliminate the adhesion promoting layer.

For all of the foregoing reasons, it is clear that *Flepp* does not anticipate the present invention or render it obvious and Applicants respectfully request that this rejection be withdrawn.

### **III. Rejections under 35 U.S.C. § 103**

The Office rejected claims 40 and 67 under 35 U.S.C. 103(a) as allegedly being unpatentable over *Flepp*. These claims were rejected alleging that the recitation of a compatibilizer in a proportion in the range of 5-35 parts in weight in the outer layer would have been obvious in light of *Flepp*'s disclosure that the compatibilizer is in the range of 0-30% weight. The Office argues that it would have been obvious to optimise the range of *Flepp* to arrive at the range in the instant invention. Applicants respectfully traverse.

As mentioned before, *Flepp* fails to teach or suggest the basic structure of the thermoplastic multilayer composite of claim 26. For example, *Flepp* fails to teach or suggest that the innermost and outermost layers could be eliminated. Indeed such layers are stated to be important in the hollow bodies comprising them. *See, e.g., Flepp* at col. 2, lines 27-38. *Flepp* also fails to teach or suggest the use of a compatibilizer in the innermost and outermost layers. Therefore, *Flepp* does not suggest every limitation of the rejected claims, as a *prima facie* case of obviousness rejection requires.

M.P.E.P. § 2143. For at least this reason, claims 40 and 67 are not obvious in light of *Flepp*. Accordingly, Applicants respectfully request that this rejection be withdrawn.

#### IV. Conclusion

Applicants respectfully request that this Amendment under 37 C.F.R. § 1.116 be entered by the Office, placing claims 26-42, 51, 52, 54-58, 60-62, and 64-77 in condition for allowance. Claims 72 and 73 should be rejoined for examination. The proposed amendments of claim 26 do not raise new issues or necessitate the undertaking of any additional search of the art by the Office, since all of the elements and their relationships claimed were inherent in the claims as examined. Therefore, this Amendment should allow for immediate action by the Office.

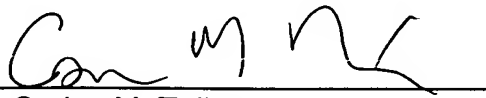
Finally, applicants submit that the entry of the amendment would place the application in better form for appeal, should the Office dispute the patentability of the pending claims.

In view of the foregoing remarks, the claimed invention is neither anticipated nor rendered obvious in view of the art cited against this application. Applicants, therefore, request the entry of this Amendment, the Office's reconsideration and reexamination of the application, and the timely allowance of the pending claims.

Please grant any extensions of time required to enter this response and charge any additional required fees to our deposit account 06-0916.

Respectfully submitted,

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